

SOKHADZE, Ye.V.; SOKHADZE, M.Ye.

Botanico-geographical features of the limestone Massifs of  
Migariya and Gaucha (Megreliya). Trudy Inst. geog. AN Gruz.  
SSR 20:105-118 '64. (MIRA 18:5)

SOKHADZE, Ye.V.; SOKHADZE, M.Ye.

Phytogeographical characteristics of the mountain part of the  
limestone belt of western Georgia. Biul.MOIP.Otd.biol. 69  
no.2:121-129 Mr-Ap '64. (MIRA 17:4)

SOKHAN', Lidiya Vasil'yevna; SIl'CHENKO, Zinaida Aleksandrovna  
[Sil'chenko, Z.O.]; OSTRYANIN, D.Kh.[Ostryanyn, D.Kh.],  
otv. red.; KUCHER, V.I., red.; MATVIICHUK, O.O., tekhn.red.

[Technological progress and the worker; the formation of a  
new type of worker in the process of the building of com-  
munism] Tekhnichnyi progres i robitnyk; formuvannia pratsiv-  
nyka novoho typu v protsesi komunistychnoho budivnytstva.  
Kyiv. Vyd-vo AN URSR, 1963. 161 p. (MIRA 16:10)

1. Chlen-korrespondent AN Ukr.SSR (for Ostryanin).  
(Labor and laboring classes) (Communism)

ZAYTSEVA, A.F.; KAGANOVICH, G.A.; SOKHANEVA, M.M.; SHVARTS, N.I.

Treatment of peptic ulcer of the stomach and duodenum with  
hexonium. Sov.med. no.3:16-20 '62. (MIRA 15:5)

1. Iz terapevticheskogo otdeleniya (zav. - prof. N.I. Shvarts)  
i 2-y Gorodskoy bol'nitsy (glavnnyy vrach B.V. Goyev), Leningrad.  
(PEPTIC ULCER) (HEXONIUM)

GRDZELYAN, R.; SOKHAKYAN, R.

Transfer of 110 kv. electric power transmission lines to  
154 kv. Prom.Arm. 5 no.8:49-54 Ag '62. (MIRA 15:8)

1. Armyanskiy filial Vsesoyuznogo nauchno-issledovatel'skogo  
instituta elektromekhaniki.  
(Armenia—Electric networks)

TEMLYAKOV, A.A.: SOKHAN', A.M.

Analytic solution of a certain Goursat's problem. Uch.zap.  
MOPI 21:23-33 '54. (MIRA 10:7)  
(Differential equations, Partial)

10

SOXHAN', L. V.

Socialist labor is the basis for the all-round development of  
personality. Sots.trud no.9:10-20 S '57. (MIRA 1957)  
(Labor and laboring classes)

SOKHAN', L. ✓

Party organizations in the struggle for technical progress  
("Technology and people." Reviewed by L.Sokhan'). Sots.trud  
no.12:147-150 D '58. (MIRA 13:4)  
(Kharkov--Machinery industry)  
(Kharkov--Efficiency, Industrial)

SOKHAN', Lidiya Vasil'yevna, kand.filosof.nauk; NIKITIN, P.A., red.;  
KOLBANOVSKIY, V.V., red.; ATROSHCHENKO, L.Ye., tekhn.red.

[People of inspiring work] Liudi vdokhnovenного труда. Moskva,  
Izd-vo "Znanie," 1960. 29 p. (Vsegoiuznoe obshchestvo po raspro-  
straneniu politicheskikh i nauchnykh znanii, Ser.2, Filosofiya,  
no.20). (MIRA 13:7)

(Efficiency, Industrial)

SOKHAN', M.; CHEHEPANOV, B., red.

[Crimean Province of the Ukrainian S.S.R. in the seven-year period, 1959-1965] Krymskaisa oblast' Ukrainskoi SSR v semiletii. 1959-1965. Simferopol', Krymizdat, 1959, 20 l. (MIRA 13:7) (Crimea--Economic policy)

GEL'D, P.V.; SEREBRENNIKOV, N.N.; SOKHAREV, P.M.

Thermal expansion of silicon and its iron alloys. Fiz.met.i metalloved.  
2. no.2:244-253 '56. (MIRA 9:9)

1.Ural'skiy politekhnicheskiy institut imeni S.M.Kireva.  
(Silicon crystals) (Expansion (Heat))

SOKOLSKII, G. A.

"Investigation of the Properties of Thin-Sectioned Slag-Portland Cement Produced in Vibromills." Cand TechSci, Technical Administration, All-Union Sci Res Inst of Glass, Moscow, 1955. (KL, No 12, Mar 55)

So: Sum. No 670, 22 Sept 55 - Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (15)

SCIENTIFIC INFORMATION

USSR/Chemical Technology. Chemical Products and Their Application -- Silicates.  
Glass. Ceramics. Binders, I-9

Abst Journal: Referat Zhur - Khimiya, No 2, 1957, 5302

Author: Budnikov, P. P., Sokhatskaya, G. A.

Institution: State All-Union Scientific Research Institute of Cement Industry

Title: Properties of Superfinely Ground Slag-Portland Cement

Original  
Publication: Tr. Gos. Vses. n.-i. in-ta tsement. prom-sti, 1956, No 9, 3-50

Abstract: Superfine grinding (particles  $< 3 \mu$  65-85%, specific surface, determined with Deryagin surface-meter,  $\sim 25,000 \text{ cm}^2/\text{g}$ ) increases the hydraulic activity of slag-Portland cements (S), prepared with acidic, low basicity and basic slag. Relative increase in strength is considerably higher during the early periods of hardening (1.3 and 7 days). In tests of 1:3 mortars of high consistency, compression strength at the age of one day was as high as  $415 \text{ kg/cm}^2$ , and cf 3 days -- up to  $458 \text{ kg/cm}^2$ . Relative increase in activity on superfine grinding is greater in the case of S prepared with low-activity

Card 1/2

USSR/Chemical Technology. Chemical Products and Their Application -- Silicates.  
Glass. Ceramics. Binders, I-9

Abst Journal: Referat Zhur ~ Khimiya, No 2, 1957, 5302

Abstract: slag, than in the case of S prepared with active basic slag. Super-finely ground S (SGS) show shorter setting time. Optimal gypsum content of SGS is 5-7%. Strength of SGS is higher following a combined grinding of the components, than on grinding them separately and combining them thereafter. Heat of hardening of SGS is higher than that of conventionally ground S. Strength of concrete made with SGS is greater by 50-155%, than that of concrete made with conventionally ground S, at the same water/cement ratios. Water requirements of concrete made with SGS are higher.

Card 2/2

SOKHATSKAYA, G.A., kandidat tekhnicheskikh nauk; SALOMATINA, Yu.F..  
kandidat tekhnicheskikh nauk.

Experience of the "Komsomolets" cement factory in increasing the  
durability of rotary kiln linings. TSement 23 no.2:13-18 Mr-Ap '57.  
(MIRA 10:7)

(Kilns, Rotary)

PIROGOV, A.A.; LEVE, Ye.N.; SOKHATSKAYA, G.A.; SALOMATINA, Yu.P.

Testing the lining of the clinkering zone in rotary kilns by  
unfired products of magnesia concrete, Sbor.nauch.trud. UNIIO  
no. 5:234-259 '61. (MIRA 15:12)

1. Ukrainskiy nauchno-issledovatel'skiy institut ogneuporov  
(for Pirogov, Leve). 2. Gosudarstvennyy vsesoyuznyy nauchno-  
issledovatel'skiy institut tsementa (for Sokhatskaya, Salomatina).  
(Kilns, Rotary) (Magnesia cement)

IL'INA, N.V.; SOKHATSKAYA, G.A.; SHADRINA, M.N.

Service of linings in the clinkering zone. TSement 27 no.6:8-10  
N-D '61. (MIRA 15:3)  
(Cement kilns) (Refractory materials)

IL'INA, N.V.; SOKHATSKAYA, G.A.; SHADRINA, M.N.; TISHKOVA, K.S.

Analysis of the stability of linings of rotary kilns. Tsement 28 no.6:  
16-17 N-D '62. (MIRA 15:12)

1. Gosudarstvennyy institut po ptoyektirovaniyu predpriyatiy i  
nauchno-issledovatel'skim rabotam tsementnoy promyshlennosti  
i Gosudarstvennyy vsesoyuznyy nauchno-issledovatel'skiy institut  
tsementnoy promyshlennosti.  
(Kilns, Rotary) (Refractory materials)

IL'INA, N.V.; SOKHATSKAYA, G.A.; SHADRENA, M.N.; TISHKOVA, K.S.

Durability of lining of rotary kilns in 1962. TSement 29  
no. 5;9-11 S-0 '63. (MIRA 16:11)

1. Gosudarstvennyy vsesoyuznyy institut po proyektirovaniyu  
i nauchno-issledovatel'skim rabotam tsementnoy promyshlennosti  
i Vsesoyuznyy gosudarstvennyy nauchno-issledovatel'skiy institut tsementnoy promyshlennosti.

BUDNIKOV, P.P.; SOKHATSKAYA, G.A.; SHUBIN, V.I.

Insulating the refractory lining in the clinkering zone of rotary cement kilns. Ogneupory 29 no.11:508-513 '64.

(MIRA 18:1)

1. Gosudarstvennyy vsesoyuznyy nauchno-issledovatel'skiy institut tsementnov promyshlennosti.

IL'INA, N.V., kand.tekhn.nauk; SOKHATSKAYA, G.A., kand.tekhn.nauk; SHADRINA,  
M.N., inzh.; TISHKOVA, K.S., inzh.

Durability of brick linings in rotary kilns. TSement 30 no.6:9-11  
(MIRA 18:1)  
N-D '64.

IL'INA, N.V., kand. khim. nauk.; SOKHATSKAYA, G.A., kand. tekhn. nauk; SHADRINA, M.N., inzh.; KOROLEVA, E.P., inzh.

Durability of the linings of rotary kilns in 1964. TSement  
31 no. 6:4-6 N-D '65. (MIRA 18:12)

1. Gosudarstvennyy vsesoyuznyy institut po proyektirovaniyu i nauchno-issledovatel'skim rabotam tsementnoy promyshlennosti, Leningrad, i Vsesoyuznyy gosudarstvennyy nauchno-issledovatel'skiy institut tsementnoy promyshlennosti.

L 46602-66 EWP(e), EWT(m), T/EWP(t)/ETI IJP(c) JD/WH  
ACC NR: AP6012839 (A) SOURCE CODE: UR/0080/66/039/004/0736/0743

AUTHOR: Budnikov, P. P.; Sokhatskaya, G. A.; Kulygin, I. P.

ORG: None

TITLE: Conditions of crystallization and certain properties of electrosmelted cordierite  
castings

SOURCE: Zhurnal prikladnoy khimii, v. 39, no. 4, 1966, 736-743

TOPIC TAGS: crystallization, aluminum silicate mineral, magnesium compound, metal casting

ABSTRACT: The processes of crystallization and solidification of a magnesium aluminosilicate melt close to cordierite in composition were studied in order to obtain dense cordierite products with predetermined properties. The structure and phase composition of the castings were determined with an MP-3 polarizing microscope and URS-501 x-ray apparatus. Processes of cordierite formation were also followed by measuring the thermal expansion coefficient. In addition, the castings were subjected to thermal and physicomechanical tests. It was found that the properties of the final crystallization product can be varied by changing the conditions of crystallization and solidification. A product with a given set of properties can be obtained by introducing mineralizers and controlling the average temperature of the surface of the casting during the solidification stage. High-strength heat-stable magnesium

Card 1/2

UDC: 666.9+542.65

VAZHENIN, N., nachal'nik (Kiyev); SOKHATSKIY, V., predsedatel' (Tashkent);  
POROSHIN, V., zamestitel' predsedatelya (Novosibirsk); KLAZ, I., instruk-  
tor; CHISTYAKOV, I., predsedatel' (Taganrog).

All-Union Military Games of primary organizations of the All-Union  
Volunteer Society for Assistance to the Army, Air Force, and Navy.  
Voen.znan. 29 no.9: 2 of cover S '53. (MLRA 6:12)

1. Otdel orgmassovoy raboty i propagandy orgkomiteta Vsesoyuznogo obshche-  
stva sodeystviya aviatsii Ukrainskoy SSR (for Vazhenin). 2. Orgkomitet  
Vsesoyuznogo obshchestva sodeystviya aviatsii Uzbekskoy SSR (for Sokhatskiy)  
3. Oblastnyy orgkomitet Vsesoyuznogo obshchestva sodeystviya aviatsii (for  
Poroshin). 4. Minskiy oblastnyy orgkomitet Vsesoyuznogo obshchestva so-  
deystviya aviatsii (for Klaz). 5. Komitet pervichnoy organizatsii Vseso-  
yuznogo obshchestva sodeystviya aviatsii (for Chistyakov).  
(Military education)

SOKHATSKIY,V.

On roads to reorganization. Voen.znan.31 no.4:6 Ap'55.  
(MIRA 8:10)

1. Predsedatel' respublikanskogo komiteta Dobrovol'nogo  
obshchestva sodeystviya armii, aviatsii i flotu Uzbekskoy  
SSR  
(Uzbekistan--Military education)

SOKHATSKIY, V.

Let's meet the national celebration in a proper manner. Voen.  
znan. 33 no.10:12 0 '57. (MIRA 10:11)

1. Prezsedatel' respublikanskogo komiteta Dobrovol'nogo obshchestva  
sodeystviya armii, aviatsii i flotu UzSSR.  
(Tashkent--Military education)

Sokhatskiy, V.

85-58-5-23/38

AUTHOR: Sokhatskiy, V., Chairman DOSAAF Republic Committee, Uzbekskaya SSR (Tashkent)

TITLE: Develop Aviation Sports! (Razvivat' aviatsionnyy sport!)

PERIODICAL: Kryl'ya rodiny, 1958, Nr 5, pp 17-18 (USSR)

ABSTRACT: The author refers to the decisions of the 4th All-Union USSR DOSAAF Congress, which stressed the need for improving the management of all types of aviation sports and raising training standards. In Uzbekistan, 1506 trainees met the standard requirements in parachute jumping, gliding, pilotage, and model-airplane building in 1957, and more than 6,000 teams of model-airplane builders were training throughout the Republic as a direct result of annual grants made by the Uzbekskaya SSSR Ministry of Education to promote local competitions in aviation sports. In 1957, the Tashkent Aeroclub arranged numerous lectures and excursions to the club; it also conducted courses in various fields of aviation. In 1958, the Club's instructors and sportsmen trained teams in more than 60 primary DOSAAF organizations in Tashkent and Tashkent Oblast. In January and February 1958, the Presidium of the DOSAAF Republic Committee

Card 1/3

85-58-5-23/38

## Develop Aviation Sports!

called monthly meetings of senior inspector-pilots of its oblast committees to study the training program of public instructors in gliding and to learn the basic principles of model-airplane building and parachute jumping. These inspector-pilots are already training other instructors in gliding in their respective localities. The large Uzbekistan DOSAAF organization has, however, only one aeroclub (Tashkent), while at least two more are needed in Samarkand and in one of the large industrial centers of the Fergana valley. The lack of parachute towers handicaps training throughout the Republic, but the construction of towers is planned in the near future at Chirchik, Namangan, Fergana, and Samarkand. Personalities mentioned are DOSAAF parachute instructor-pilots Ivan Karnyukhin, V. Ponomarev, D. Zabelin, I. Zhuravlev, Masters of Sports and pilot Yuriy Yudin, USSR Champion in all-around aviation sports, who in recent years have trained more than 1,500 parachutists in Bukhara, Samarkand, Fergana, Andizhan, Karshi and Chirchik. Uzbekistan DOSAAF Committees and organizations intend to meet the challenge

Card 2/3

85-58-5-23/38

Develop Aviation Sports!

posed by the All-Union Komsomol and Young People's Spartacus Games in quasi-military types of sports. The council of the Tashkent Aeroclub is organizing training sessions to aid competitions in various types of aviation sports, on the eve of contests held in all fields on a Republic level. There are 2 photographs, one of which shows pilot Yudin.

ASSOCIATION: Republikanskiy komitet DOSAAF Uzbekskoy SSR (Republic DOSAAF Committee, Uzbekskaya SSR)

AVAILABLE: Library of Congress

Card 3/3    1. Aviation - USSR    2. Parachute jumping - Training  
              3. Airplanes - Models    4. Gliders

SOKHATSKIY, V.

Visiting our Bulgarian friends. Voen.znan. 34 no.12:13 D '58.  
(MIRA 12:2)

1. Chlen prezidiuma TSentral'nogo komiteta Dobrovol'nogo  
obshchestva sodeystviya armii, aviatsii i flotu SSSR.  
(Bulgaria--Military education)

05396  
SOV/107-59-8-16/49

(  
AUTHOR: Sokhatskiy, V., Chairman  
TITLE: Fulfilling the Decisions of the Fourth DOSAAF Congress  
PERIODICAL: Radio, 1959, Nr 8, pp 20 - 21 (USSR)

ABSTRACT: This article deals with the activities of radio amateur clubs in Uzbekistan. The radio clubs of Tashkent, Samarkand and Fergana are foremost in disseminating knowledge on radio engineering among the population. Their members are not only successful radio amateurs, but they have received various prizes in exhibitions of equipment designed by them. However, the activities of the radio clubs in Yangi-Yul, Izbaskent (Andizhanskaya oblast') are not supported by the local DOSAAF organizations. The author states that more talented youth may be attracted to participate in the work of radio clubs, if the DOSAAF organizations provided the required facilities. There

Card 1/2

05396

SOV/107-59-8-16/49

Fulfilling the Decisions of the Fourth DOSAAF Congress  
is 1 photograph.

ASSOCIATION: Respublikanskiy komitet DOSAAF UzSSR (Republic  
DOSAAF Committee of the UzSSR).

Card 2/2

SOKHATSKIY, V.

Disseminating and propagating the best of aquired military experience.  
(MIRA 12:12)  
Voen. znan. 35 no.5:22-23 My '59.

1.Predsedatel' respublikanskogo komiteta Dobrovol'nogo obshchestva  
sodeystviya armii, aviatsii i flotu Uzbekskoy SSR.  
(Uzbekistan--Military education)

SOKHATSKIY, V.

Specialists for the national economy. Radio no. 11:14-15  
N '60. (MIRA 14:1)

1. Predsedatel' respublikanskogo komiteta Dobrovol'nogo  
obshchestva sodeystviya armii, aviatsii i flotu UzSSR.  
(Telecommunication)

SOKHATSKIY, V.

Improve the quality of training for technical personnel.  
Voen.znan. 36 no.11:8-9 N'60. (MIRA 13:11)

1. Predsedatel' respublikanskogo komiteta Vsesoyuznogo ordena  
Krasnogo Znameni dobrovol'nogo obshchestva sodeystviya armii,  
aviatsii i flotu Uzbekskoy SSR.  
(Technical education)

SOKHATSKIY, V.

Finding new powers. Kryl.rod. 11 no.11:9-10 N '50. (MIRA 13:10)

1. Predsedatel' respublikanskogo komiteta Dobrovol'nogo obshchestva  
po sodeystviyu armii, aviatsii i flotu Uzbekskoy SSR.  
(Uzbekistan--Aeronautics--Societies, etc.)  
(Uzbekistan--Aeronautics--Competition)

SOKHATSKIY, V.

Organizational work determines success. Voen. znan. 38 no.9:18-19  
(MIRA 15:9)  
S '62.

1. Predsedatel' respublikanskogo komiteta Dobrovolskogo  
obshchestva sodeystviya armii, aviatsii i flotu Uzbekskoy SSR.  
(Uzbekistan—Military education)

SOKHATSKIY, V.

Sportmen of Uzbekistan. Radio no.7:11-12 J1 '65. (MIRA 18:9)

1. Predsedatel' Respublikanskogo komiteta Vsesoyuznogo  
dobrovol'nogo obshchestva sodeystviya armii, aviatsii i  
flotu Uzbekskoy SSR.

SOKHATSKIY, V.

Under the flag of the Spartakiada. Kryl. rod. 16 no.1:8  
(MIRA 18:3)  
Ja '65.

1. Predsedatel' respublikanskogo komiteta Vsesoyuznogo doh-rovol'-  
nogo obshchestva sodeystviya armii, aviatsii i flotu Uzbekistana.

SOKHATSKIY, V.

For self-support. Voen. znan. 41 no.1:29-30 Ja '65.

(MIRA 18:2)

1. Predsedatel' respublikanskogo komiteta Vsesoyuznogo dobrovol'nogo  
obshchestva sodeystviya armii, aviatsii i flotu Uzbekskoy SSR.

SOKHIN, A.V., doktor tekhnicheskikh nauk; KONOROV, A.V., professor, retsent; ZOLOTNITSKIY, N.D., doktor tekhnicheskikh nauk, professor, re-daktor; NOVOCHADOV, A.G.; PETROVSKAYA, Ye., tekhnicheskiy redaktor.

[Technology of construction] Tekhnologija stroitel'nogo proizvodstva. Izd. 2-e, perer. i dop. Moskva, Izd-vo Ministerstva komunal'nogo khoziaistva RSFSR, 1954. 579 p. [Microfilm] (MLRA 7:11) (Building)

SOKHIN, F. A.

SOKHIN, F. A.- "Initial Stages of a Child's Mastery of Structure of Language." Moscow  
Order of Lenin and Order of Labor Red Banner State U imeni M. V. Lomonosov, Moscow, 1955  
(Dissertations for the Degree of Candidate of Pedagogical Sciences)

SO: Knizhnaya Letopis' No. 26, June 1955, Moscow

SOKHIN, F.A.

Conference on the problems in the psychology of learning.  
Vop.psikhol 3 no.3:184-190 My-Je '57. (MLRA 10:8)  
(Learning, Psychology of)

SOKHIN, F.A.

Formation of linguistic generalizations in the process of  
development. Vop.psikhol. 5 no.5:112-123 S-0 '59.  
(MIRA 13:3)

1. Sektor psikhologii Instituta filosofii AN SSSR.  
(Children--Language)

ZEYGARNIK, Blyuma Vul'fovna; SOKHIN, F.A., GEORGIYEVA, G.I., tekhn.  
red.

[Pathology of thinking] Patologija myshlenija. Moskva, Izd-vo  
Mosk. univ., 1962. 242 p. (MIRA 15:3)  
(PHYCHOLOGY, PATHOLOGICAL)

SOLOV'YEV, I.M., red.; SOKHIN, F.A., red.; NOVOSELOVA, V.V., tekhn.  
red.

[Mental development of deaf children and those with normal  
hearing; comparative analysis] O psikhicheskem razvitiu glu-  
khikh i normal'no slyshashchikh detei; srovnitel'nyi analiz.  
Pod red. I.M.Solov'eva. Moskva, Izd-vo APN RSFSR, 1962. 370 p.  
(MIRA 16:1)

1. Akademiya pedagogicheskikh nauk RSFSR, Moscow. Institut de-  
fektologii.

(CHILDREN, DEAF) (CHILD STUDY)

MATYUSHKIN, A.M.; SOKHIN, F.A.

All-Union Congress on the Philosophical Problems Concerning the  
Physiology of the Higher Nervous Activity and Psychology. Vop.  
psikhol. 8 no.4:172-182 Jl-Ag '62. (MIRA 16:1)  
(PSYCHOLOGY--CONGRESSES) (NERVOUS SYSTEM)

SOKHIN, I. M. (Captain of the Medical Service)

"Accelerated Method of Performing the Erythrocyte Sedimentation Test in Inclined  
Capillary Tubes"

Voyenno-Meditsinskiy Zhurnal, No. 10, October 1961

SOKHIN, I.M., kapitan med.sluzhby

Accelerated method for staging the erythrocyte sedimentation  
reaction in inclined capillaries. Voen-med.zhur. no.10:91  
0 '61. (MIRA 15:5)

(ERYTHROCYTES)

SOKHIN, L. (Khar'kov)

From a school to the district. Poch. delo 4 no. 11:25 N '58.  
(MIRA 11:12)

(Fire prevention--Study and teaching)  
(Education, Cooperative)

BARDYSHEV, A.A., inzh.; VASIL'YEV, V.N., kand. ~~ekon.~~ nauk; VOLKOV, V.G., inzh.; MIKHAYLOV, B.V., kand. tekhn.nauk; MIKHAYLOV, V.A., kand. tekhn. nauk; MIKHAYLOV, V.I., inzh.; PETUNIN, P.I., inzh.; SAVEL'YEV, N.P., inzh.; SOKHIN, V.G., inzh.; STUGAREV, A.S., kand. tekhn. nauk, nauchnyy red.; ZAYCHIKOVA, E.A., red. izd-va; BOROVNEV, N.K., tekhn. red.

[Production of rock, gravel and sand for construction; present state and prospects for development] Proizvodstvo nerudnykh stroitel'nykh materialov; sostoianie i perspektivy razvitiia. [By] A.A. Bardyshev i dr. Moskva, Gosstroizdat, 1962. 201 p. (MIRA 16:2)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut nerudnykh stroitel'nykh materialov i gidromekhanizatsii. 2. Vsesoyuznyy nauchno-issledovatel'skiy institut nerudnykh stroitel'nykh materialov i gidromekhanizatsii (for all except Zaychikova, Stugarev, Borovnev).

(Crushed stone industry)  
(Sand and gravel industry)

SOKHIN, V.G., inzh.; KASHCHICH, A.M., inzh.

Design of the pickup units of metal locators. Sbor. trud. VNIINerud  
no.2:112-123 '62. (MIRA 16:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut nerudnykh stroitel'-  
nykh materialov i gidromekhanizatsii.  
(Metal detectors)

BERSENEV, I.I.; MOROZOVA, V.F.; SALUN, S.A.; SOKOLOVA, P.N.; SOKHIN, V.K.

New data on the stratigraphy of Quaternary alluvial, alluvium-lacustrine, and lacustrine deposits in the Maritime Territory and middle Amur Valley. Sov.geol. 5 no.9:78-86 S '62. (MIRA 15:11)

(Maritime Territory--Alluvium)  
(Amur Valley--Alluvium)

SOKHIN, Yu.M., inzh.

Control of sodium sulfide in technological processes. TSvet. met.  
31 no. 7:66-70 J1 '58. (MIRA 11:8)  
(Flotation)  
(Sodium sulfides)

MELIK-STEPANOV, Yu.G.; SOKHIN, Yu.M.; STABIN, I.P.; ROZHKOV, I.S..  
otv.red.; MAKARENKO, M.G., red.izd-va; KARPOV, V., tekhn.red.

[New methods of heavy fluid separation and use of magnetic  
separation in flowsheets for dressing complex ores and  
placers] O novykh raznovidnostakh metoda razdeleniya v  
tiazhelykh sredakh i primenenii magnitnoi separatsii v skhe-  
makh obogashcheniya kompleksnykh rud i rossypei. Moskva, Izd-vo  
Akad.nauk SSSR, 1960. 35 p.  
(MIRA 13:8)  
(Ore dressing)

MELIK-STEPANOV, Yu.G.; SOKHIN, Yu.M.; TROFIMOV, G.N.

Jigging of ores containing valuable minerals having a specific  
gravity of 3 - 4. Nauch. soob. IAFAN SSSR no.3:47-49 '60.  
(MIRA 16:3)  
(ore dressing)

S/137/61/000/011/037/123  
A060/A101

AUTHORS: Mitrofanov, S. I., Melik-Stepanov, Yu. G., Sokhin, Yu. M., Borisov, V. V.

TITLE: On a new application of movable heavy media for the concentration of minerals with specific gravity exceeding three

PERIODICAL: Referativnyy zhurnal. Metallurgiya, no. 11, 1961, 7, abstract 11G50 ("Nauchno soobshch. Yakutskiy fil. Sib. otd. AN SSSR", 1960, no. 3, 50 - 61)

TEXT: One of the problems of this work was the finding of the cheapest, but sufficiently efficacious materials for the moving layer. The following ore materials were studied: hematite-magnetite dredge slimes, magnetic fraction of jiggling concentrate - 1 mm, ground up magnetic fraction of the jiggling concentrate - 1 mm and even - 1 + 0.5 mm. The best results were obtained with a moving layer of ilmenite-magnetite material. Its high specific gravity of 4.75 makes it possible to vary the specific gravity of the moving layer between wide limits depending on the grit fineness. In course of the investigations the necessary parameters were studied. When the volume of the weighting compound is great then the

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S/137/61/000/011/037/123

A060/A101

On a new application of movable heavy media...

vibratory action on the heavy moving medium in "BK" ("VZh") apparatus acts to render it denser and raise its specific gravity to 3.15 - 3.2. An electronic apparatus has been worked out for the control of the specific gravity of the medium, using a capacitance transducer as the density indicator. A semi-industrial installation "VZh-3" has been designed and constructed, and is being tested. The schematic diagrams are given.

A, Shmeleva

[Abstracter's note: Complete translation]

Card 2/2

MELIK-STEPANOV, Yu.G.; SOKHIN, Yu.M.; ZASKEVICH, M.V.

Practice of treating sands of deluvial and eluvial placer deposits.  
Nauch. soob. IAFAN SSSR no.4:86-93 '60. (MIRA 14:12)  
(Yakutia--Ore dressing)

MITROFANOV, S.I.; MELIK-STEPANOV, Yu.G.; SOKHIN, Yu.M.; BORISOV, V.V.

Ore dressing on a shaker trough. TSvet.met. 33 no.1:17-22  
Ja '60. (MIRA 13:5)  
(Ore dressing--Equipment and supplies)

MELIK-STEPANOV, Yu.G.; SOKHIN, Yu.M.

Problem of dressing highly impregnated dense ores. Nauch. soob.  
IAFAN SSSR no.4:94-100 '60. (MIRA 14:12)  
(Ore dressing)

PLAKSIN, I.N.; MELIK-STEPANOV, Yu.G.; SOKHIN, Yu.N.; MAKARENKO, N.G.,  
red. izd-va; TIKHOMIROVA, S.G., tekhn. red.

[Dressing ores in heavy media] Obogashchenie rud v tiazhe-  
lykh sredakh. Moskva, Izd-vo Akad. nauk SSSR, 1962. 110 p.  
(MIRA 15:10)

(Ore dressing)

SOKHIN, Yu.M. inzh.

Dressing large-size classes of t'ra ores in heavy media. Izv.  
vys.uchev.zav. i gor.znauk. 7 no. 4:168-172 '64. (MIRA 17:7)

1. Sibirsckoye otdeleniye AN SSSR, Yakutskiy filial.

YANOVSKAYA, B.I.; BERLYAND, N.S.; RESHETOVA, M.N.; SOKHINA, A.M.

Effect of biomycin on vitamin C metabolism in experimental animals  
and human subjects. Vop.med.khim. 6 no.4:345-350 J1-Ag '60.  
(MIRA 14;3)

1. Research Team under the direction of prof. B.A.Lavrov, Chair  
of Therapeutics, Central Institute for Postgraduate Medical  
Training, Moscow.  
(ASCORBIC ACID) (AUREOMYCIN)

NIKITINA, V.D.; KHOLCHEV, N.V.; ANDREYEVA, Z.M.; SOKHINA, A.M.;  
CHERNOKHVOSTOVA, Ye.V.; PLETENEVA, I.L.

Properdin system and its role in infection and immunity. Report  
No.1: The production of active preparations of zymosan. Zhur.  
mikrobiol.epid.i immun. 31 no.8:12-19 Ag '60. (MIRA 14:6)

1. Iz Moskovskogo instituta epidemiologii, mikrobiologii i gigiyeny.  
(POLYSACCHARIDES) (ZYMOSAN) (PROPERDIN)

SOKHINA, A.M.; BIRGER, M.O.

Amino acid consumption by microbes of the family Enterobacteriaceae.  
Report No.1. Zhur.mikrobiol., epid. i immun. 32 no.11:82-87 N '61.  
(MIRA 14:11)

1. Iz Moskovskogo instituta epidemiologii, mikrobiologii i gigiyeny.  
(ENTEROBACTERIACEAE) (AMINO ACID METABOLISM)

L 42913-65 EWT(1)/EWA(j)/EWA(b)-2 JK

s/0016/65/000/003/0048/0052

ACCESSION NR: AP5008013

AUTHOR: Sokhina, A. M.; Birger, M. O.

TITLE: Amino acid utilization by various pathogenic bacteria

SOURCE: Zhurnal mikrobiologii, epidemiologii i immunobiologii,

no. 3, 1965, 48-52

TOPIC TAGS: amino acid, bacteria, bacteriologic culture medium, diphtheria, staphylococcus, typhoid, streptococcus, pertussis, serin, glutamic acid, aspartic acid, asparagine, alanine, glycine

ABSTRACT: Five groups of pathogenic bacteria (streptococci, staphylococci, diphtheria, pertussis, and typhoid bacilli) were investigated in 15 synthetic media to determine amino acid utilization differences. Each synthetic medium contained salts and a single amino acid (dl-serin, l-glutamic acid, d-glutamic acid, l-aspartic acid, l-asparagine, dl-alanine, glycine, treonine, l-histidine, methionine, leucine, isoleucine, norleucine, tryptophane, and l-glutamine) as the sole source of nitrogen and carbon. Resting cell suspensions prepared from pathogenic bacterial groups (2 streptococci

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L 42943-65

ACCESSION NR: AP5008013

strains, 4 staphylococci strains, 4 diphtheria strains, 5 pertussis strains, and 10 typhoid bacilli strains) were incubated with a medium (500 million cells/ml medium) in a test tube at 37° for 24 hrs. Turbidity of bacterial suspensions was measured before and after incubation by an absorptiometer, viability of cells was measured by growth of cell colonies in nutritive media, and degree of amino acid utilization was based on amino acid levels in media before and after incubation. Amino acids in the media were measured quantitatively by a reaction method suggested by V. J. Harding and R. M. MacLean (1916) for alanine; 1 ml of 1% ninhydrine and 1 ml of 10% pyridine were added to 1 ml of the medium and heated for 20 min in a water bath at 100°. Intensity of the coloring was measured by a photoelectrocolorimeter. It was established that the various pathogenic bacterial strains utilized only 7 of the 15 amino acids: dl-serin, l- and d-glutamic acids, l-aspartic acid, dl-alanine, glycine, and l-asparagine. Of the 5 pathogenic bacterial groups, streptococci did not utilize any amino acids at all. The other 4 groups all utilized l-glutamic acid. Staphylococci, typhoid, and pertussis bacteria used dl-serin and dl-alanine. Typhoid, pertussis, and diphtheria bacteria used l-aspartic acid. Only typhoid and staphylococci bacteria used

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L 42943-65

ACCESSION NR: AP5008013

glycine. Only pertussis and diphtheria bacteria used L-asparagine. Only pertussis bacteria used D-glutamic acid. Pertussis and typhoid bacteria not only used more amino acids, but also a greater quantity of each, whereas staphylococci and diphtheria bacteria used fewer amino acids and lesser quantities of each. Findings show that the differences in amino acid utilization by the various groups of pathogenic bacteria are significant. Orig. art. has: 2 tables and 1 figure.

ASSOCIATION: Moskovskiy institut epidemiologii i mikrobiologii  
(Moscow Institute of Epidemiology and Microbiology)

SUBMITTED: 29Jan64

ENCL: 00

SUB CODE: LS

NR REF Sov: 001

OTHER: 002

Card 3/3

MARDASHEV, S.R.; SEMINA, I.A.; SOKHINA, A.M.

Amino acid composition of histidine decarboxylase. *Biokhimia*  
30 no.6:1179-1181 N.D '65. (MIRA 1981)

1. Laboratoriya enzimologii Instituta biologicheskoy i meditsinskoy  
khimii AMN SSSR i kafedra biokhimii Pervogo Moskovskogo meditsinskogo  
instituta, Moskva. Submitted January 21, 1965.

NIKITINA, V.D.; KHOLCHEV, N.V.; CHERNOKHVESTOVA, Ye.V.; SOKHINA A.M.

Properdin system and its role in infection and immunity.  
Report No.4: Preparation of properdin from placental serum.  
Zhur. mikrobiol., epid. i immun. 33 no.11:132-137 N '62.  
(MIRA 17:1)  
1. Iz Moskovskogo instituta epidemiologii i mikrobiologii.

*3,5(114), 1, 1*  
AUTHORS: Gel'man, A. D., Sokhina, L. P. 76-3-5-8/39

TITLE: Oxalate Complexes of Plutonium-(IV) (Oksalatnyye kompleksnyye soyedineniya plutoniya(IV) )

PERIODICAL: Zhurnal Neorganicheskoy Khimii, 1958, Vol 3, Nr 5, pp 1100-1104 (USSR)

ABSTRACT: The oxalate complexes of plutonium-(IV) in solid phase have been isolated and their properties were examined in detail.

$(\text{NH}_4)_6[\text{Pu}(\text{C}_2\text{O}_4)_5]$ ,  $\text{Na}_4[\text{Pu}(\text{C}_2\text{O}_4)_4] \cdot 5\text{H}_2\text{O}$  were isolated as greenish yellow crystals.  $\text{K}_4[\text{Pu}(\text{C}_2\text{O}_4)_4] \cdot 4\text{H}_2\text{O}$  and  $\text{K}_6[\text{Pu}(\text{C}_2\text{O}_4)_5] \cdot 4\text{H}_2\text{O}$  were isolated and their existence

proved by the determination of the electric conductivity. All plutonium compositions are soluble in water and are stable in cold and in heat.

By the increase of the  $\text{p}_\text{H}$ -value of the oxalate complex, solutions decomposition occurs and hydroxides precipitate as final products.

Card 1/2 The oxalate solutions of plutonium-(IV) are also

Oxalate Complexes of Plutonium-(IV)

78-3-5-8/39

decomposable by strong acidification. The solid plutonium-(IV) oxalates modify if they are stored in air. This modification is connected with the destroying influence of  $\alpha$ -rays upon the oxalate ion. By the influence of  $\alpha$ -rays, the oxalate ion is decomposed into CO and CO<sub>2</sub>. There are 6 tables and 3 references, 2 of which are Soviet.

SUBMITTED: November 15, 1957

AVAILABLE: Library of Congress

1. Plutonium oxalate--Properties

Card 2/2

65932 69532

S/078/60/005/05/05/037  
B004/EC16

5.2200(A)

AUTHORS:

Sokhina, L. P., Gel'man, A. D.

TITLE:

Decomposition of Complex Oxalate Compounds of Plutonium  
Under the Action of Alpha Radiation

PERIODICAL:

Zhurnal neorganicheskoy khimii, 1960, Vol. 5, No. 5,  
pp. 1013-1015

TEXT: The authors found that the oxalate complexes of plutonium change their color on storage. They explain this phenomenon by the action of  $\alpha$ -radiation of Pu upon  $C_2O_4^{2-}$ , and investigated the following compounds in order to clarify this effect:  $Pu(C_2O_4)_2 \cdot 6H_2O$  (two modifications),  $Na_4[Pu(C_2O_4)_4] \cdot 5H_2O$  (two modifications),  $K_4[Pu(C_2O_4)_4] \cdot 4H_2O$  (two modifications), and  $(NH_4)_6[Pu(C_2O_4)_5] \cdot nH_2O$ . These compounds were analyzed after 3, 5, and 10 days, 4 months, and 1 year (Table 1). Weight constancy occurred after 1 1/2 year (analyses in Table 2). Under the action of  $\alpha$ -radiation

Card 1/2

65922 69632

Decomposition of Complex Oxalate Compounds of Plutonium Under the Action of Alpha Radiation

S/078/60/005/05/05/057  
B004/B016

$C_2O_4^{2-}$  decomposes in the cold to give CO and  $CO_3^{2-}$ . Pu(IV) is reduced to Pu(III) by CO. Only after complete disintegration of  $C_2O_4^{2-}$  Pu(III) is oxidized again to Pu(IV). The end product of the decomposition of the ammonium compound and plutonium oxalate is the hydroxycarbonate  $PuOCO_3 \cdot 2H_2O$ . The afore-mentioned sodium (or potassium) salt decomposes to form a mixture of plutonium oxy-carbonate and sodium (or potassium) carbonate. In 1950 the authors together with V. I. Belova measured the magnetic susceptibility of Pu(III) and Pu(IV) oxalates and their disintegration products. The data contained in table 3 conform to those found by A. D. Gel'man and F. P. Kondrashova for plutonium peroxide. There are 3 tables and 3 Soviet references. ✓

SUBMITTED: February 16, 1959

Card 2/2

KAYNARSKIY, I.S.; ORLOVA, I.G.; PROKOPENKO, M.I.; SOKHNA, G.Ye.;  
YEVDOKIMOV, Yu.P.

Testing of zircon dinas bricks in the arches of steel-smelting arc  
furnaces. Ogneupory 27 no.2:77-80 '62. (MIRA 15:3)

1. Ukrainskiy nauchno-issledovatel'skiy institut ogneuporov (for  
Kaynarskiy, Orlova, Prokopenko). 2. Khar'kovskiy traktornyy  
zavod im. Ordzhonikidze (for Sokha, Yevdokimov).  
(Firebrick--Testing) (Electric furnaces)

USSR/Chemistry - Carbon dioxide

FD-3372

Card 1/1      Pub. 50 - 16/20

Authors      : Dyukarev, V. V., Sokhnenko, N. V.

Title      : Generator of the type GSD for the production of carbon dioxide

Periodical      : Khim. prom. No 7, 433, Oct-Nov 1955

Abstract      : Describe a generator of a new type in which carbon dioxide is produced by reacting coke with pure oxygen. The carbon dioxide is used at a plant manufacturing charged water. Two figures.

Institution      : Uralkhimmash [Ural Chemical Machines] Plant

ALEKSEYEV, S.A.; ZHMAKIN, D.F.; KEREKESH, V.V.; MALOV, A.N.;  
MARTSINOVSKIY, P.L.; MOLOTOK, A.V.; NESMELOV, V.A.;  
TEVEROVSKIY, P.A.; KHISIN, R.I.; DELITSIN, A.A., retsenzent;  
SOKHNOVSKIY, M.A., retsenzent; STEFANOV, V.P., retsenzent;  
STOROZHEV, M.V., retsenzent; TALANOV, P.I., retsenzent;  
FAL'KEVICH, A.S., retsenzent; CHERNUSHEVICH, V.A., retsenzent;  
KHISIN, R.I., red.; GAL'TSOV, A.D., red.; VOL'SKIY, V.S., red.;  
STRUZHESTRAKH, Ye.I., red.; SEMENOVA, M.M., red. izd-va; MODEL',  
B.I., tekhn. red.

[Manual for the establishment of norms in the machinery industry . . .  
in 4 volumes] Spravochnik normirovshchika-mashinostroitelia v  
4 tomakh. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-  
ry. Vol.3. [Establishing norms for founding, stamping, welding,  
painting, metal plating, and woodwork] Normirovanie liteinykh,  
kuznechnykh, shtampovochnykh, svarochnykh, lakokrasochnykh ra-  
bot, metallopokrytii i derevoobrabotki. 1962. 671 p.  
(MIRA 15:4)

(Machinery industry—Production standards)

SOKHOMIN, M.Ye.; KUZNETSOV, K.P.

Gunshot wounds of the heart and of the small and large intestines.  
Khirurgiia no.8:76 Ag. '55. (MLRA 9:2)

1. Iz Dmitrievskoy rayonny bol'nitay Kurskoy oblasti.  
(HEART--WOUNDS AND INJURIES)  
(INTESTINES--WOUNDS AND INJURIES)

SOKHOR, E.

Gas pipeline construction in Czechoslovakia. Stroi.truboprov.  
4 no.12:25-27 D '59. (MIRA 13:5)

1. Glavnnyy inzhener natsional'nogo predpriyatiya "Plinostav".  
(Czechoslovakia--Gas, Natural--Pipelines)

VLASOVA, K.N.; ANTROPOVA, A.N.; MATKOVSKIY, A.N.; KOSTENKO, Yu. I.;  
ZASLAVSKIY, N.N.; SAMOCHVALOV, A.V.; SOKHOR, F.Z.; NECHESOV, V.A.  
[deceased]

Rapid polymerization of caprolactam. Plast. massy no.8:18-19  
'64. (MIRA 17:12)

SOKHOR, G., SOLOV'YEV, G.; ZEMSKOV, P.

Training of drivers. Za bezop.dvizh. no.328-9 Mr '60. (MIRA 13:12)

1. Zamestitel' nachal'nika avtobazy №.33 tresta Mosavtozheldor (for Sokhor). 2. Zamestitel' nachal'nika Glavmosavtotransa (for Zemskov). (Automobile drivers--Education and training)

ANNENBERG, E.A.; MAYOROVA, E.A.; SOKHOR, I.M.

Film materials for expansion bellows-type guards. Stan. i instr.  
33 no.11:35-38 N '62. (MIRA 15:11)  
(Machine tools--Safety appliances)

BULYGIN, Leonid Pavlovich; SOKHOR, Izabella Naumovna; GORSKIY, B.A.,  
inzh., red.; GVIRTS, V.L., tekhn.red.

[Work practices of the technological laboratory and technological  
council of the Kalinin District Committee of the CPSU in Lenin-  
grad] Opyt raboty tekhnicheskogo kabineta i tekhnicheskogo soveta  
pri Kalininskem raionnom komitete KPSS g. Leningrada. Leningrad,  
1959. 24 p.  
(Leningrad--Technological innovations)

MURAV'YEV, Aleksandr Andreyevich; CHERTETSOV, Vasiliy Nikolayevich;  
SOKHOR, I.N., red.

[Work of the council of innovators of Leningrad instrument  
industry workers on the promotion and introduction of  
advanced production and technical experience] Rabota soveta  
novatorov leningradskikh priborostroitelei po propagande i  
vnedreniiu peredovogo proizvodstvenno-tekhnicheskogo opyta.  
Leningrad, 1964. 25 p.

(MIRA 17:9)

CHUYEV, Aleksey Vasil'yevich; CHERETETSOV, Vasiliy Nikolayevich;  
SOKHOR, Izabella Naumovna; BOBKOV, V.A., red.

[Work practice of the Leningrad Economic Region Council  
of Innovators] Opyt raboty sovetov novatorov Leningrad-  
skogo ekonomicheskogo raiona. Leningrad, 1965. 41 p.  
(MIRA 18:5)

SOKHOR, M. I.

Chemical Abst.  
Vol. 48 No. 9  
May 10, 1954  
General and Physical Chemistry

Determination of the new SiC VII structure. E. B. Gasilova, M. S. Peletskii, and M. V. Sokhor. *Doklady Akad. Nauk S.S.R.* 82, 57-60 (1952); cf. Zhdanov and Minervina, *Zhur. Eksppl. Teoret. Fiz.* 15 (1945). All the known SiC modifications have in common  $a_0 = 3.08 \text{ \AA}$ , but  $c/a$  depends on the no. of the layers in the structure piled up in direction  $c$ . Using Belov's theory of densest-sphere packings, Zhdanov had established a classification of the known modifications of SiC, which explains, e.g., Ott's structure of SiC V with 17 layers, as well as that of SiC VI (*C.A.* 42, 1099); SiC I (2.3)3; SiC II 3.3; SiC III 2.2; SiC IV (4.3)3; SiC V (2.3.3.3.3)3; SiC VI (2.3.3.3)3;  $\beta$ -SiC = 3.0; and Ramsdell's (*C.A.* 41, 4980e) SiC—87R (3.3.3.3.3.3.3.2)3. In com. SiC, another modification was observed, called SiC VII, which has a particular powder diagram that is somewhat similar to that of trigonal SiC I and IV, but different from hexagonal SiC II and III. The layers obey the law  $n_e = 3 \times 9$ , with  $d_{hkl} = n_e a \sqrt{(6/(8n_e^2 S + 9l^2))}$ ;  $S = h^2 + hk + l^2$ , in very good agreement with the exptl. facts. The translation group is trigonal-rhombohedral, primitive. The discussion of the intensities gives also a complete agreement with the structural principles expressed in the correlations  $h - k \neq 3m$ ;  $l = 3t$ , and  $h - k = 3m$ ;  $l = n_e l = 27t$ ;  $mt = 0.1, 2$ , etc. Space group  $D_{3d}^4 = R\bar{3}m$ , and subgroup  $C_{3h}^4 = R\bar{3}m$ , with the symbol of spheric packings (2.2.2.3)3. A series of structural types is established expressed by SiC I with  $n_e = 15$ ; SiC VII,  $n_e = 27$ ; (2.2.2.2.3)3,  $n_e = 39$ ; (2.2.2.2.2.2.2.3)3,  $n_e = 51$ . The differences of the  $n_e$  values between these single types is  $\Delta n_e = 12$ . W. Eitel

*Refractory*

S

**Crystalllographic Data of Silicon Carbide VIII.** E. B.  
Gudlova and M. I. Sokhor. (*Doklady Akademii Nauk*  
*S.S.R.*, 1952, **82**, 2, 249-251). [In Russian]. Crystalllo-  
graphic data of a new type of silicon carbide called by the  
authors SiC VIII are given, *v. a.*

SOKHOR, M. I.

USSR.

*Calculation of the crystal structure of silicon carbide.*  
VIII. V. B. Gasilova and M. I. Sokhor. *Doklady Akad.*  
*Nauk S.S.R.* 82, 219-51 (1952). *ibid.* 48, 491-6.  
Among the Carborundum crystals a yellow transparent crystal  
was observed. A powder x-ray diagram indicates that this  
modification belongs to the hexagonal lattice system. The  
space group is  $D_{3h}^8$ . *C3/mnc*. This new modification was  
designated as SiC VIII. J. Rovtar Leach

SOKHOR, M. I.

20-5-32/48

AUTHORS: Vert, Zh. L., Kamentsev, M. V. (Deceased), Kudryavtsev, V. I.,  
and Sokhor, M. I.

TITLE: Reduction of  $Al_2O_3$  by Carbon (K voprosu o vossta-  
novlenii  $Al_2O_3$  uglerodom)

PERIODICAL: Doklady AN SSSR, 1957, Vol. 116, Nr 5, pp. 834 - 837 (USSR)

ABSTRACT: It was noticed by the authors that during the reduction of  $TiO_2$  by carbon in presence of  $Al_2O_3$  in a atmosphere of  $CO$  at  $1650^{\circ}C$  a loss in substance occurred. Apparently  $Al_2O_3$  entered into the reaction. It is stated that the interaction between  $Al_2O_3$  and C begins under normal pressure at approximatively  $2000^{\circ}C$ . In the vacuum the temperatures amounted to  $1560$  and  $1750^{\circ}C$ . The pressure of the gases above the reaction mixture reached 1 atmosphere at  $1980^{\circ}C$ , a fact which agrees well with the above mentioned data. The authors investigated the interaction between  $Al_2O_3$  and C between  $1500$  and  $1900^{\circ}C$ , furthermore the interaction in the mixture  $Al_2O_3$ -C-TiC, in order to eliminate the influence of the lower oxides and of the oxycarbide of Ti. The molar relation of the components is given in table 1. The experimental method and the characteristic of the components is given. The experimental results given in figure 1 show

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20-5-32/48

Reduction of  $\text{Al}_2\text{O}_3$  by Carbon

consists of corundum, whereas,  $\gamma$ - $\text{Al}_2\text{O}_3$  is a transition form from the hydroxide forms of alumina to corundum. 3.) Clear lines in the spinel radiogram prove a high degree of the crystallization state of the phase in question. It is stable, is neither in water nor in hydrochloric or sulphuric acid decomposed, nor in cold or by long boiling. Above  $1750^\circ$  a second phase is found which quantity increases with the temperature rise. At  $1900^\circ$  black crystals are formed in the inner which are covered by a light grey crust. It consists to 90 % of a hexagonal phase and is very stable, too. It is analogous to the superoxide  $\text{Al}_2\text{O}$  (reference 6). The progressive reduction of the aluminum oxides agrees with the temperature curve of the oxygen leakage. The structure of the above mentioned black crystals is not yet deciphered up to now. There are 1 figure, 2 tables, and 6 references, 2 of which are Slavic.

Card 3/4

L 61511-65 EWG(j)/EWT(1)/EWP(e)/EWT(m)/EPF(c)/EWP(i)/EPR/T/EWP(t)/SEC(b)-2/  
EWF(b) Pr-4/Ps-4/Pi-4 IJP(c) JD/MW/GG/WH  
ACCESSION NR: AP5013722

UR/0070/65/010/003/0418/0421  
548.73

52

51

B

AUTHOR: Sokhor, M. I.; Glukhov, V. P.

TITLE: Silicon carbide with a wurtzite structure

SOURCE: Kristallografiya, v. 10, no. 3, 1965, 418-421

TOPIC TAGS: wurtzite, silicon carbide, crystal structure

ABSTRACT: 2H-SiC was detected during the synthesis of silicon nitride. A tablet pressed from silicon powder (95% Si) was placed on a graphite base in the carbon tube of a furnace where it was heat treated in a nitrogen jet as follows: heating to 1400°C and soaking at this temperature for two hours, further heating to 1600°C and soaking at 1600°C for two hours followed by a slow cooling of the sample together with the furnace. After the experiment a greenish, finely dispersed deposit was detected on the surface of the graphite base at some distance from the tablet. X-ray pictures were taken in a Debye chamber with a working diameter of approximately 68 mm using different types of radiation sources: copper, nickel, cobalt, iron and chromium. The test sample was both stationary and rotating. X-ray analysis showed

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ACCESSION NR: AP5013722

that the deposit was fine crystalline silicon carbide. Other phase lines were not detected. A detailed analysis showed that the deposit was a rare polytype of silicon carbide 2H-SiC of the wurtzite type similar to the one reported by Adamsky and Merz, obtained in the same temperature interval 1400-1600°C but under entirely different conditions. Orig. art. has: 2 figures, 1 table.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut abrazivov i shlifovaniya (All-Union Scientific Research Institute of Abrasives and Polishing)

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NO REF Sov: 003

OTHER: 002

Card 2/2

SEKHLIK, M. M.

BULANOVA, N.K.; KERTSMAN, L.I.; PLISETSKAYA, M.A.; SOKHOR, N.H.

Medical and sanitary services for industrial workers of Leningrad  
District in Moscow. Zdrav.Ros.Feder. 1 no.6:11-15 Je '57.  
(MLRA 10:8)

1. Iz sanitarno-epidemiologicheskoy stantsii Leningradskogo rayona  
Moskvy  
(MOSCOW--INDUSTRIAL HYGIENE)

GUSHEKOVA, Ye.V.; DYMSHITS, G.A.; KURAYTIS, S.A.; MAKIGULIN, I.I.;  
SEMEKOV, S.S.; SOKHOR, R.A.; FILIPOVA, N.B.

Obtaining tanning agents from the phenols of shale tar. Trudy  
VNIIT no.13:101-108 '64.

(MIRA 18:2)

S/089/60/009/006/007/011

B102/B212

21. 2010 also 153P  
 AUTHORS: Petukhov, V. A., Gabanov, I., Zhuravlev, A. A., Karpashev, M., Kotor, V. I., Myas, E. A., Obukhov, Yu. L., Sotnik, V., Tairak, Yu., Benda, F., Dobretz, I., Marek, V., Pechenyuk, T., Svetov, L. V.

TITLE: The model of the ring proton synchrotron

PERIODICAL: Atomnaya Energiya, v. 9, no. 6, 1950, 491-493

TEXT: The ring proton synchrotron which is a powerful focusing accelerator with a magnetic field constant with respect to time, has been suggested in 1933 by A. A. Kolosov, and in 1935 by Petukhov and M.S. Rubincik and, independently of them, in 1935 by Syms (Phys Rev, 43, 1152 (1935)). The new device seems to be able to produce very intensive accelerated-particle beams. A model of this ring synchrotron (with radial sector) has been constructed in the Obninsk Institute of Nuclear Industry (Joint Institute of Nuclear Research). The electrostatic components of the accelerating elements arranged periodically, each of which has a direct and an inverse sector; it also has two straight sections. The azimuthal

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S/089/60/009/006/007/011

B102/B212

The model of the ring...

...which focuses the beam in radial dimension of the direct sector, which is 22.50', and that of the inverse sector, which brings about the vertical focusing, is 7.50'. The inverse sectors cause the orbital parameter of the ring synchrotron to be larger than that of a standard strongly focusing accelerator. The ratio of the maximum radius of the orbit to the minimum radius of curvature is approximately equal to 3. The coils generating the field are arranged such that the magnetic field increases with the radius of the orbit according to  $H = A_0(R_0)^4$ , i.e. it increases from 42 oer at  $R = 35$  cm to 345 oer at  $R = 59$  cm. The model exhibits the characteristic that the gap between the vertical dimensions of the proton to the gap radius. Therefore, the vertical dimensions of the working area will change from 2 to 4 cm. The increase of all geometrical dimensions of the sectors and the constancy of the field under  $K$  (the field index of the model is equal to 4) bring about a dynamic similarity of the orbits and the frequency of the free oscillations will also be constant. The number of horizontal oscillations per circulation may be varied from 1 to 3 in the vertical direction, and from 2.5 to 3.5 in the radial direction. The model is especially suited for

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The model of the ring...

...the injection (of 20-40 kav electrons) may be done continuously or in a pulsed manner. The acceleration is done with an electric rotational field having a voltage of 10 to 20 v per circulation and a frequency of 450-500 cps. The first test results obtained from this unit showed that it is very sensitive with regard to the accuracy of the principal magnetic characteristics. There are 2 figures and 7 references. 5 Soviet-bloc publications read as follows: The two references to English-language publications read as follows: K. Syms. Phys.Rev. 28, 1152 (1950). 108 (1950).

SUBMITTED: May 28, 1960

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S/057/61/031/010/013/015  
B111/B112

2415732

## AUTHORS:

Bonda, F., Gabanets, I., Dobrash, I., Zhuravlev, A. A.,  
Karmasim, M., Kotov, V. I., Marek, M., Myae, E. A., Obukhov,  
Yu. L., Petukhov, V. A., Svetov, L. V., Sokhor, V., Fukatko,  
T., and Tsirak, Yu.

TITLE: Annular proton synchrotron with radial sectors

PERIODICAL: Zhurnal tekhnicheskoy fiziki, v. 31, no. 10, 1961, 1253-1261

TEXT: This article describes the model of an annular proton synchrotron with radial sectors, built and put into operation at the Ob'yedinennyy institut yadernykh issledovaniy (Joint Institute of Nuclear Research).

## Technical data:

|                                           |        |
|-------------------------------------------|--------|
| Number of periodicity elements            | 8      |
| Azimuthal dimensions of a direct sector   | 22°30' |
| Azimuthal dimensions of an inverse sector | 7°30'  |
| Azimuthal dimensions of the gap           | 7°30'  |
| amplification factor                      | ~3     |
| Initial radius                            | 35 cm  |

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Annular proton synchrotron with ...

|                                                          |               |
|----------------------------------------------------------|---------------|
| Focal radius                                             | 59 cm         |
| Vertical dimension of the chamber for the initial radius | 2 cm          |
| Coefficient k for which $H = H_0 (r/r_0)^k f(\theta)$    | 4             |
| Field strength in the initial radius                     | $\sim 42$ oe  |
| Field strength in the final radius                       | $\sim 340$ oe |
| Injection energy                                         | 20 - 40 kev   |
| Critical energy (total)                                  | 1.12 Mev      |
| Final energy (total)                                     | $\sim 2$ Mev  |

The frequencies of free particle oscillations were found to be  $v_x \approx 3.1$  and  $v_z \approx 1.8$ , which are lower than the theoretical value. The machine can also be used for studying the behavior of the particle beam and its accumulation. A cross-sectional view of the electromagnet is shown in Fig. 1. A pressure of  $1 - 2 \cdot 10^{-6}$  mm Hg prevailed in the vacuum chamber. The injection system is designed both for pulsed and continuous operation. Acceleration is effected by an electric rotating field of 500 cps and 10 - 25 v per revolution. A special "speed up" system (rotating field of 600 v per revolution) serves for improving the electron-capture efficiency.

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Annular proton synchrotron with ...

The pulse, which is excessively increased by the "speed up" process, is reduced by a thyratron circuit. A constant value of  $k$  could be attained with a theoretically calculated arrangement of the field coils along the ideal orbit. In addition to the principal coils, a coil was placed at the yoke of each sector, by which the influence of the iron resistance was eliminated.  $k$  and the azimuthal field distribution were measured with induction coils and a ballistic galvanometer. With a few exceptions, the values of  $k$  agreed with theoretical values to within  $\pm 1\%$ . The azimuthal inhomogeneity of the field was never greater than  $\pm 1\%$ . The position of the magnetic surfaces was determined with Formalloy feelers with an error of 0.2 mm. The deviation from the theoretical values was never greater than 0.5 mm. The indication of the beam during the first revolutions (without acceleration) was carried out with screens and coordinate nets in the chamber, and later (with acceleration) with photomultipliers equipped with radially adjustable sets of targets. The measurements showed that the field is strongly affected by the induction and "speed-up" core (e.g., azimuthal inhomogeneity). It was found that under optimum conditions, the upward deviation of the beam from the center of the chamber did not exceed  $\pm 4$  mm, and that the deviation of the equilibrium

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Annular proton synchrotron with ...

orbits at one and the same point of the magnetic field was 25 mm per revolution. It is noted that this model can be used to study resonances with free oscillations, electron capture into a betatron system, and accumulation of accelerated particles. Yu. A. Chernyshov, A. Grachev, and R. N. Fedorov are thanked for assistance. There are 6 figures, 1 table, 9 references: 4 Soviet and 5 non-Soviet. The three most recent references to English-language publications read as follows: Ref. 7: T. Ohkawa, Rev. Sci. Instr., 29, 108, 1958. Ref. 8: F. T. Cole et al., Rev. Sci. Instr., 28, 403, 1957. Ref. 9: K. M. Terwilliger et al., Rev. Sci. Instr., 28, 987, 1957.

SUBMITTED: December 6, 1960

Fig. 1: Cross-sectional view of electromagnet and vacuum chamber.  
Legend: (1) magnet; (2) chamber; (3) principal coils of magnet; (4) yoke coils.

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